## Amendments to the Claims:

Please cancel claims 1-17 without prejudice or disclaimer of the subject matter contained therein.

- 18. (New) A spore genetically modified with genetic code comprising at least one
  2 genetic construct encoding an antigen and a spore coat protein as a chimeric gene, said
  genetically modified spore having said antigen expressed as a fusion protein with said spore coat
  4 protein for use in oral or intranasal or rectal administration for therapeutic treatment.
  - 19. (New) A spore as claimed in claim 18, wherein the spore is of Bacillus species.
- (New) A spore as claimed in claim 18, wherein the genetic construct comprises at
   least part of a spore coat protein gene and at least part of an antigen gene, in the form of a chimeric gene.
- 21. (New) A spore as claimed in claim 18, wherein the antigen gene is located at the 2 3' end of the spore coat protein gene.
- 22. (New) A spore as claimed in claim 18, wherein the genetic construct comprises a
  2 spore coat promoter at the 5' end of the chimeric gene.
- (New) A spore as claimed in claim 22, wherein the antigen is at least one of
   tetanus toxin fragment C or labile toxin B subunit.

- 24. (New) A spore as claimed in claim 18, wherein the spore coat protein is selected from the group consisting of cotA, cotB, cotC, cotD, cotE, cotF, cotG, cotH, cotJA, cotJC, cotM, cotSA, cotS, cotT, cotV, cotW, cotX, cotY and cotZ.
- 25. (New) A spore as claimed in claim 24, wherein the spore is heat inactivated so that in use it does not germinate into a vegetative cell.
- 26. (New) A spore as defined in claim 18 for use in the treatment of a medicalcondition.
- 27. (New) A composition comprising at least two different spores as defined in claim 18, wherein said at least two different spores express at least two different antigens.
- 28. (New) A composition as defined in claim 27, wherein the composition
  2 further comprises a pharmaceutically acceptable excipient or carrier.
- 29. (New) A composition comprising a spore as defined in claim 18 in
   2 association with a pharmaceutically acceptable excipient or carrier for use in oral or intranasal or rectal administration for therapeutic treatment.

- 30. (New) A composition comprising a spore as defined in claim 26 in association with a pharmaceutically acceptable excipient or carrier for use in oral or intranasal or rectal administration for therapeutic treatment.
- 31. (New) A composition as defined in claims 27, 28 or 29, for use in treatment of a medical condition, preferably the medical condition is inflammation, pain, a hormonal imbalance and/or an intestinal disorder.
- 32. (New) Use of a spore as defined in claim 18 in the manufacture of a medicament for use in the treatment of a medical condition, preferably the medical condition is inflammation, pain, a hormonal imbalance and/or an intestinal disorder.
  - 33. (New) Use of a spore as defined in claim 26 in the manufacture of a medicament for use in the treatment of a medical condition, preferably the medical condition is inflammation, pain, a hormonal imbalance and/or an intestinal disorder.

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- 34. (New) A method of medical treatment, which method comprises the steps
  2 of
- a) administering a spore as defined in claim 18 to a human or animal in need

  4 of medical treatment by an oral, intra-nasal or rectal route;
- b) said genetically modified spore eliciting an immune response for use in 6 the prevention of a disease.

- 35. (New) A method of medical treatment, which method comprises the steps

  2 of
- a) administering a spore as defined in claim 26 to a human or animal in need

  4 of medical treatment by an oral, intra-nasal or rectal route;
- b) said genetically modified spore eliciting an immune response for use in6 the prevention of a disease.
- 36. (New) A method of producing a genetically modified spore, which method comprises the steps;

producing genetic code comprising at least one genetic construct encoding an antigen and

4 a spore coat protein as a chimeric gene;

using said at least one genetic construct to transform a vegetative mother cell;

6 inducing said transformed mother cell to sporulate; and isolating the resulting genetically modified spores.